SF Dept of City Planning

DRAFT ENVIRONMENTAL IMPACT REPORT

for the

SAN FRANCISCO PERFORMING ARTS CENTER GARAGE

Grove Street between Gough and Franklin Streets

EE 76.420

March 4, 1977

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DRAFT ENVIRONMENTAL IMPACT REPORT

SAN FRANCISCO PERFORMING ARTS CENTER GARAGE

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I. SUMMARY

The proposed Performing Arts Center Parking Garage would provide approximately 600 parking stalls in a six-level structure, open on three sides, approximately 44 feet in height. Access would be primarily on Grove and Gough Streets. The project would be funded by approximately $4 million in City revenue bonds, and would be operated by the Parking Authority.

The original project was a 400-space garage designed to occupy the western third of the Commerce High School parking lot. Subsequently, that site was designated for development of stage house, backstage facilities and additional rehearsal rooms, ancillary to the proposed concert hall, requiring relocation of the garage to its present site on the north side of Grove Street between Franklin and Gough Streets.

The garage site is within the Western Addition Approved Redevelopment Project Area A-2, and would be cleared by the Redevelopment Agency and sold to the City and County prior to development. The garage site presently includes approximately 70 vacant dwelling units, a non-profit corporation as an interim use, and portions of adjoining parking lots.

The project would have environmental impacts including the following: increased traffic, and concomitant air pollution, noise increases and fossil fuel consumption, due to provision of parking spaces with resultant reduction in parking difficulty; temporary construction impacts; additional shadows on adjacent properties.

Mitigation measures are included relative to landscaping and design considerations, energy consumption, construction impacts, archaeological and historical impacts, traffic, and parking rate structure.

Alternatives discussed include the no project alternative; various use alternatives, including mixed use; design alternatives; reduction in garage capacity; restriction to short-term parking; and various site alternatives.

This environmental impact report incorporates by reference portions of the San Francisco Performing Arts Center (EE75.183), Final Environmental Impact Report, City Planning Commission, September 11, 1975.

II. PROJECT DESCRIPTION

A. Relationship of Proposed Project to Performing Arts Center

This environmental impact report covers the proposed Performing Arts Center Parking Garage and such changes in the proposed Performing Arts Center Concert Hall and ancillary facilities as were proposed subsequent to the establishment of a separate site for the parking garage. The concert hall project has been dealt with in its entirety in the environmental impact report for the Performing Arts Center[1] (PAC EIR). Proposed changes in the Performing Arts Center Concert Hall project are shown in Table 1. In this report, the proposed 600-space garage project will be discussed in its entirety, while discussion of the concert hall modifications impact will only appear under the appropriate sections, as required.

B. Location

The site of the proposed garage project is in the area generally referred to as the Western Addition, adjacent to and west of the Civic Center. The property consists of Lots 4, 6 through 11, 23, 24 and a portion of Lot 26 in Assessor's Block 792, and is bounded by Grove Street on the south and Gough Street on the west. The proposed concert hall project would occupy the entire Assessor's Block 810, and is bounded by Grove Street on the north, Van Ness Avenue on the east, Hayes Street on the south, and Franklin Street on the west.[2] See Figures 1, 2 and 3 for location and boundaries of the proposed projects.

C. Owner of the Proposed Project

The proposed parking structure would be owned by the City and County of San Francisco.

---

[1] San Francisco Performing Arts Center, EE75.183, Final Environmental Impact Report, City Planning Commission Resolution No. 7374, September 11, 1975, on file and available for review at the offices of the Department of City Planning.

[2] Commonly known as the Commerce High School parking lot; officially designated as the Civic Center Auto Park.

TABLE 1

COMPARATIVE DATA
SAN FRANCISCO PERFORMING ARTS CENTER PROJECT[1]

Use Element	Floor Area (Square Feet) PREVIOUS DESIGN[2]	 PRESENT DESIGN
Main Symphony Hall (inc. Grand Foyer, balconies, upper lobbies)	76,000 (3,000 seats)	76,000 (3,000 seats)
Recital Hall, stage house[3] and backstage facilities[3]	8,000 (700 seats)	30,000 (700 seats)
Rehearsal Rooms	26,000	39,000
Dressing Rooms	7,000	7,000
Administrative	7,000	7,000
Storage	12,000	12,000
Ancillary (inc. lounges, rest rooms, corridors, mechanical, etc.)	29,000	29,000
Subtotal	165,000	200,000
Garage (4 levels)	132,000 (400 spaces)	---
TOTAL	297,000	200,000

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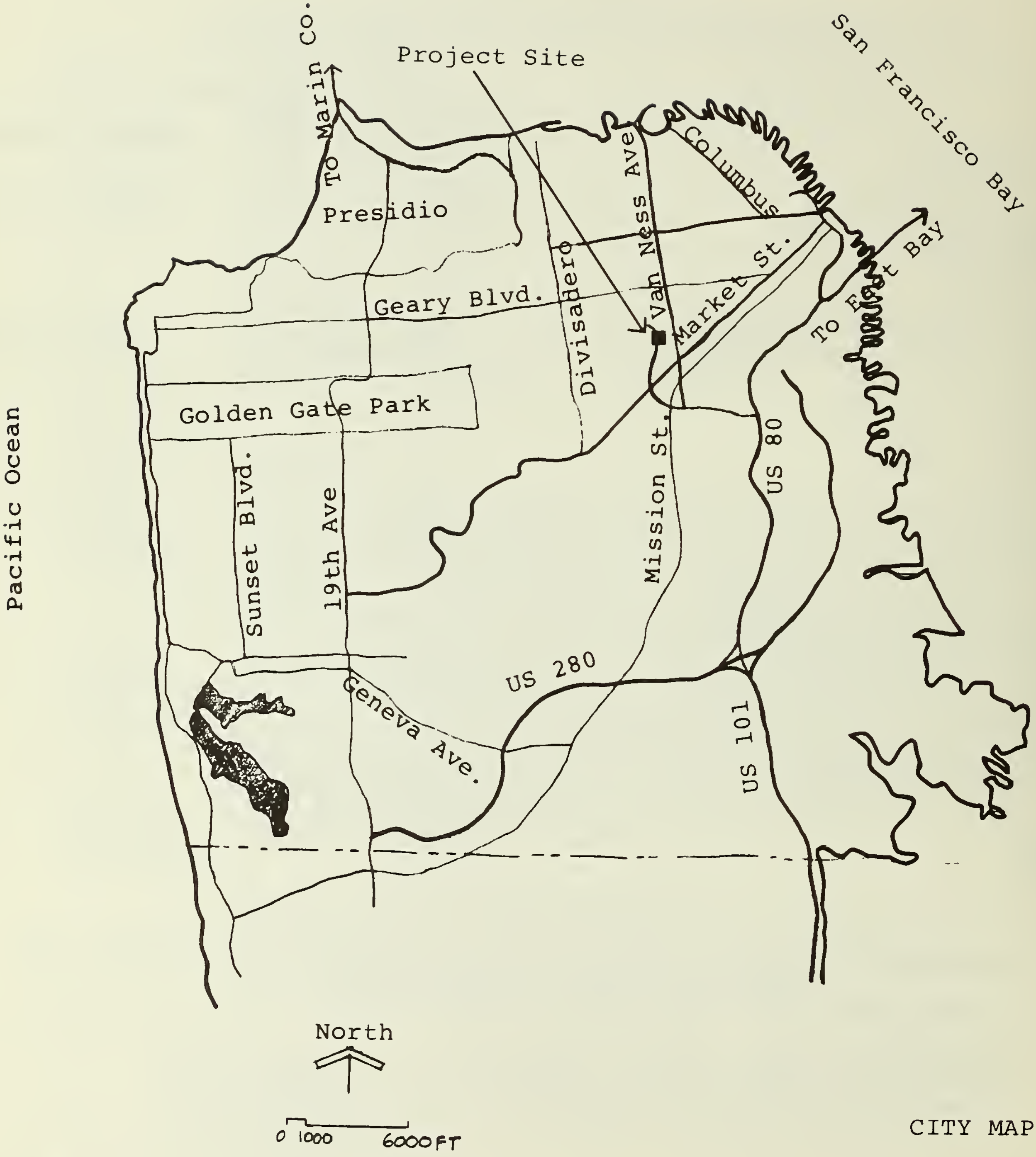
[1] Includes all facilities located on the Commerce High School site.

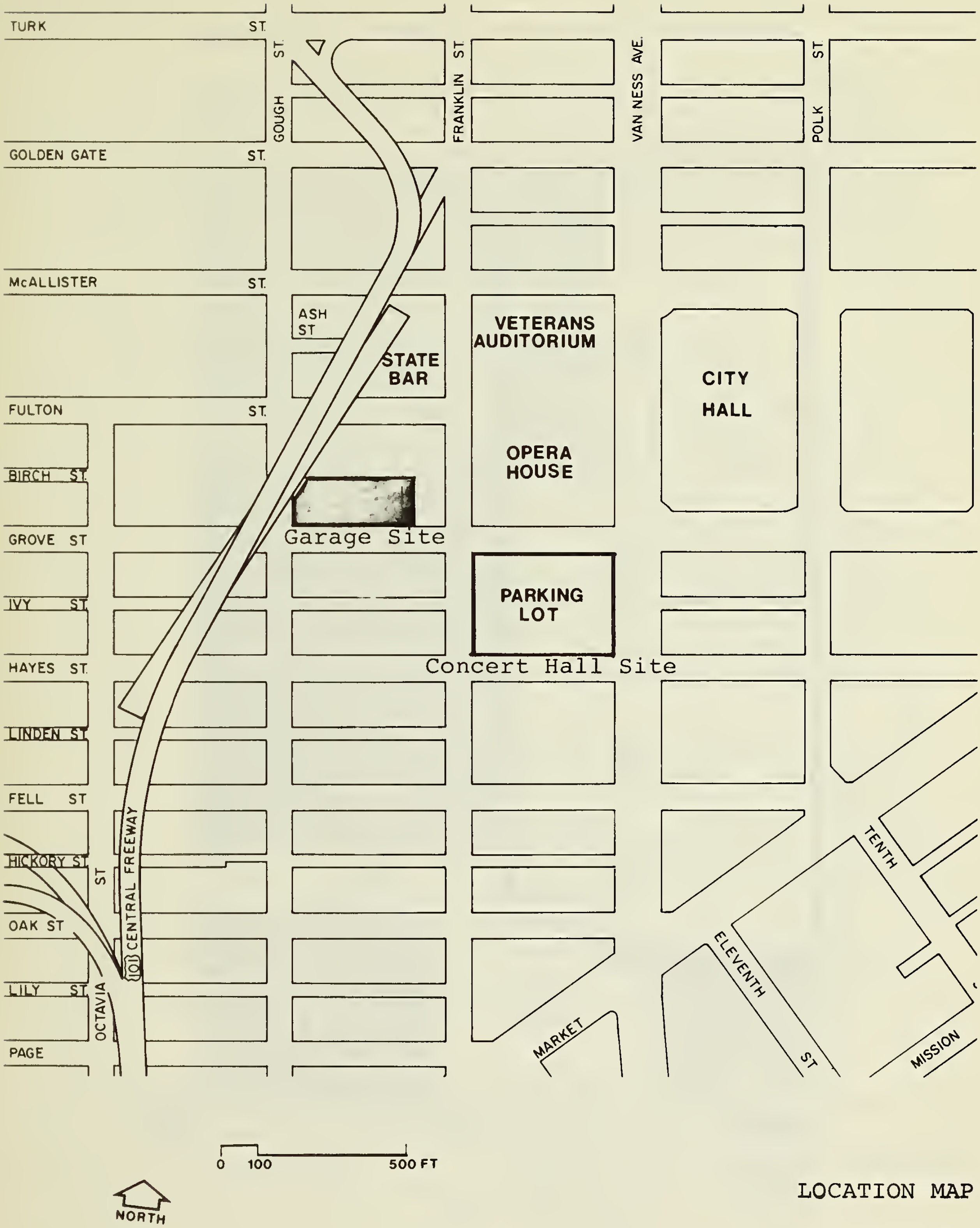
[2] As discussed in the Final PAC EIR (EE 75.183)

[3] Not included in the previous design.



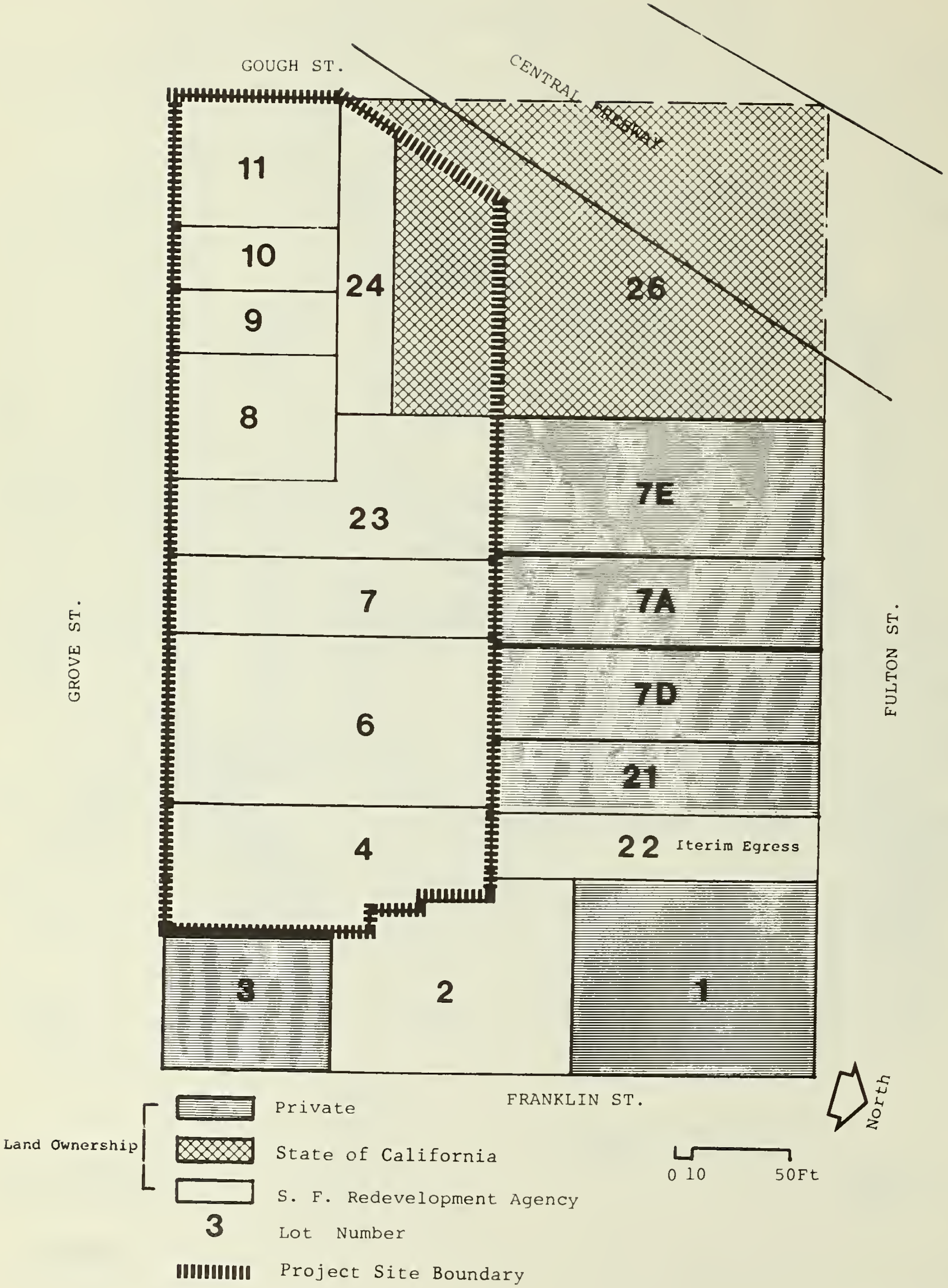
CITY MAP

FIGURE 1



LOCATION MAP

FIGURE 2



PROJECT SITE

FIGURE 3

D. Objectives Sought by the Proposed Project

The proposed parking structure would replace the parking spaces removed from the Opera House and Commerce High School parking lots, upon construction of proposed performing arts facilities thereon. It would also provide 165 new parking spaces, to meet demand generated by the proposed Opera House addition[1] and Performing Arts Center complex, and would produce revenues sufficient to provide economic feasibility.

E. Description of the Proposed Project

The proposed garage would include approximately 600 parking stalls, which would replace the approximately 435 existing spaces now provided as interim uses at various location in the vicinity. These include the existing 326 spaces on the Commerce High parking lot (Civic Center Auto Park), some 35 spaces at the Opera House parking lot, some 54 existing spaces on the garage site, and some 20 curb spaces surrounding the proposed Performing Arts Center complex. Approximately 165 new parking places would result, in addition to the consolidation of the interim uses as permanent spaces.

Of the 600 spaces, 40 would be assigned to the Department of Public Works on weekdays, replacing those presently used by the Department of Public Works on the Commerce High lot. It is anticipated that the garage would be patronized by 200 monthly ticket holders (100 from the Commerce High site, 40 from the proposed garage site, 35 from the Opera House lot, and 25 new holders), with the remaining 360 used for weekday transient parking. Some of the weekday transient users may, in fact, park all day. The garage is expected to be filled to capacity during evening Opera House and/or or concert hall performances.[1]

---

[1] The Opera House addition received a Negative Declaration under File No. EE75.161 on May 5, 1975.

Primary access to the garage would be from Gough and Grove Streets, with additional egress to Gough and Fulton Streets to be used after performances at the Opera House and/or concert hall. A strip of land would be leased from the San Francisco Redevelopment Agency on a month-to-month basis pending other use of the property, to provide egress to Fulton Street (Lot 22, Block 792).

The garage would occupy an area of approximately 36,700 square feet, with frontages of 282 feet on Grove Street and 130 feet on Gough Street. Landscaping would be provided in set-back areas, as shown on Figure 4. The proposed garage would be a six-level self-parking structure, 44 feet in height, open on three sides and closed on the north side; the open sides would have horizontal bands of grey precast concrete balustrades. Inter-floor vehicular travel would be accommodated by a rectangular sloping floor system with automatic elevators for patron use. The first level would be located below the street surface, the second level at street grade, and the remaining four levels above grade; each would include approximately 100 stalls. The facility would be partially ventilated with mechanical equipment. Approximately 20 bicycle and motorcycle parking spaces would be available on the street level of the garage, in a safe and convenient location.[2]

F. Project Sponsor, Architect and Engineer

The project is being sponsored by the Parking Authority at the request of Sponsors of San Francisco Performing Arts Center, Inc. Architect for the project is Pietro Belluschi, with Tudor Engineering Company serving as project engineers.

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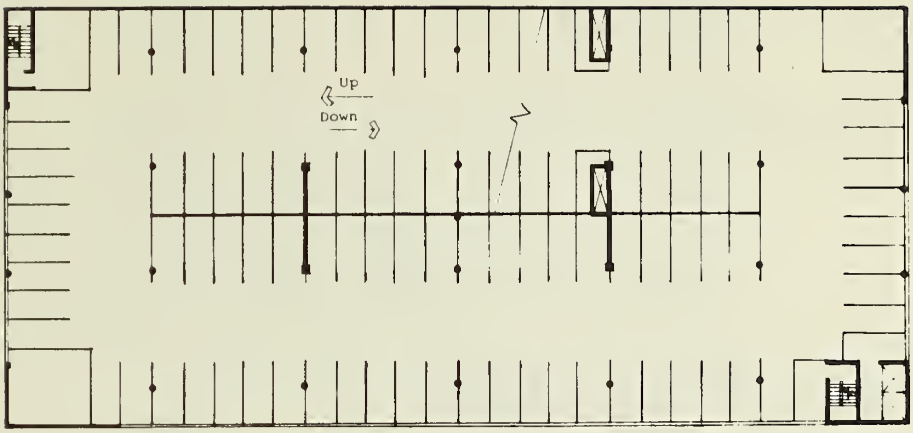
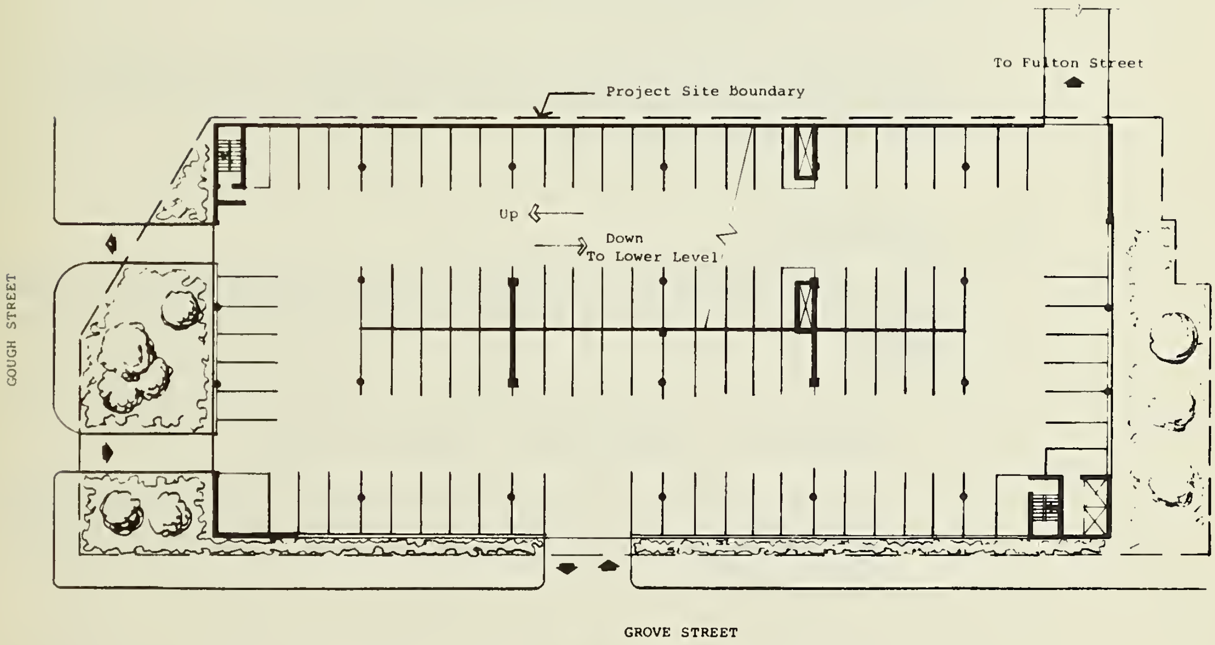
[1] San Francisco Performing Arts Center Parking Garage; Revenues, Preliminary Design and Cost Estimates, Including a Preliminary Financial Analysis by Blyth Eastman Dillon & Co., Incorporated, Tudor Engineering Company, January 1977, page 14. On file and available for review at the offices of the Department of City Planning.

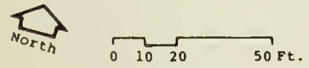
[2] Tudor Engineering Company.



TYPICAL FLOOR PLAN



GROUND FLOOR PLAN



GARAGE FLOOR PLANS

FIGURE 4

G. Cost, Financing and Utilization

Total cost of the proposed project would be approximately $4 million. It would be financed through revenue bonds issued by the Parking Authority, subject to approval in principle by the Board of Supervisors prior to April 1, 1977, or approval by the electorate thereafter, and secured by a lease from the City and County of San Francisco. The Parking Authority would own and operate the facility. The parking rate structure proposed for initial garage operation (fiscal year 1979) is similar to that presently in effect at the Civic Center Auto Park (Commerce High Lot), and is shown below:

Monthly, all day		$32.75 per month
Transient		
First hour	$0.30	
Second hour	0.30	
Third hour	0.35	
Fourth hour	0.40	
Daily Maximum		2.25
Seekday Matinee Performances		1.25
Evening Performances		1.50

The parking rates may be adjusted at any time by the Parking Authority with the approval of the Board of Supervisors.

H. Scheduling

The implementation schedule for the garage includes the following activities and estimated completion dates:

1. Approval in principle by Parking Authority and Board of Supervisors (March 1977)

2. Preparation of design drawings, plans and specifications, construction bid documents (March-June 1977)

3. Departmental-Agency review-approval (April-June 1977)

   City Planning Commission (Master Plan Referral and certification of Environmental Impact Report)
   Department of Public Works - Traffic Engineering and Bureau of Building Inspection
   Capital Improvement Advisory Committee
   Art Commission
   San Francisco Redevelopment Agency
   Parking Authority
   Real Estate Department
   City Attorney

4. Authorization by Board of Supervisors to issue revenue bonds and acquire land (July 1977)

5. Advertisement and receipt of construction bids (July 1977)

6. Advertisement and sale of revenue bonds (August 1977)

7. Construction (September 1977-June 1978)

III. ENVIRONMENTAL SETTING

A. Project Site

1. Existing Use

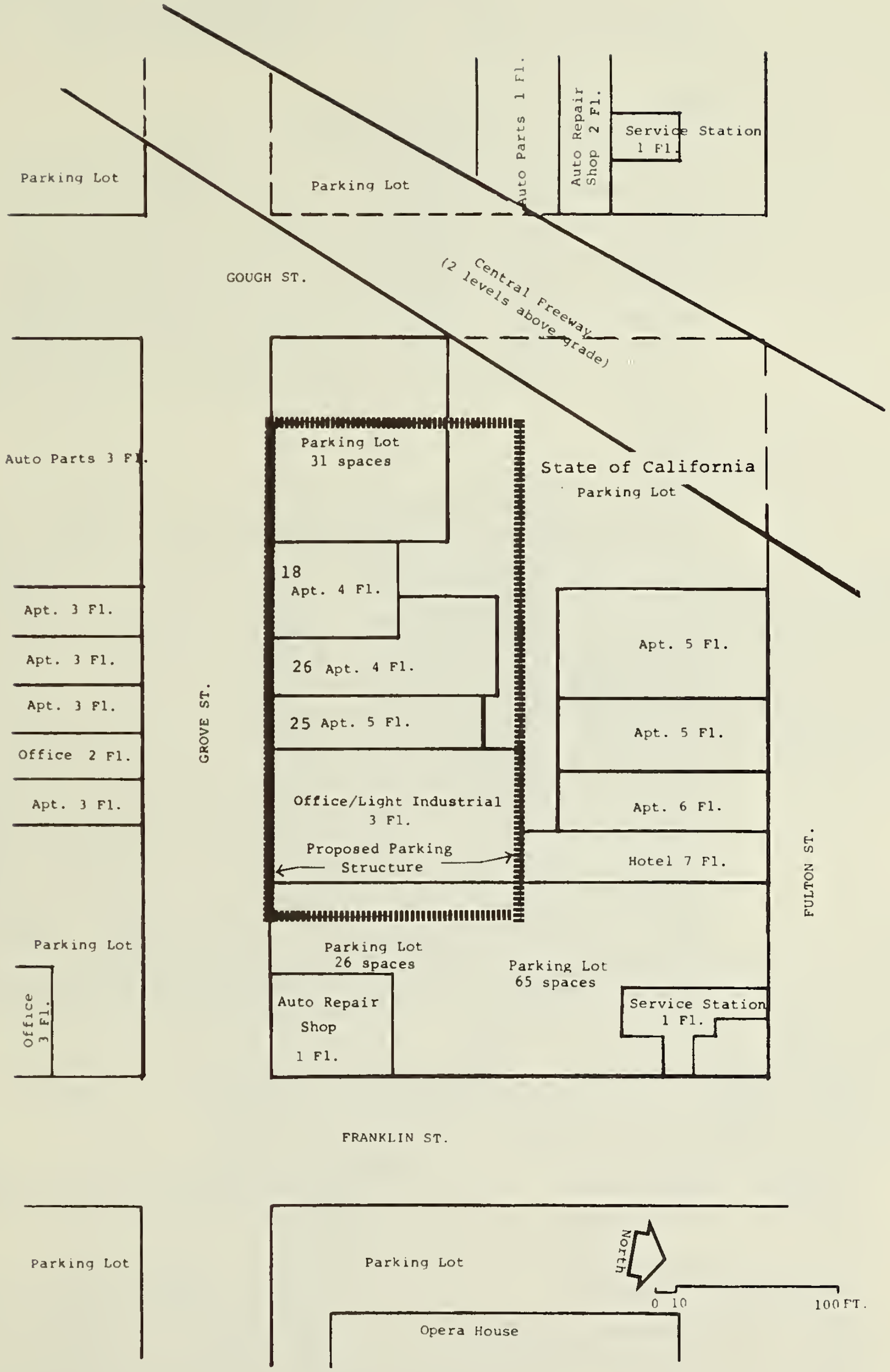
The site of the proposed garage contains four multi-story structures fronting on Grove Street and owned by the San Francisco Redevelopment Agency (Figure 5). Three of these are vacant apartment buildings totaling approximately 70 units. The fourth building is an office/light industrial building occupied since October 26, 1976, by The Pride Foundation, a non-profit corporation.[1] The use of the property by the Foundation is temporary, pending a firm development schedule for the site, and the Redevelopment Agency would work with the Foundation to effect a timely vacation and/or relocation when development is imminent.[2] Other Agency land on the project site is used to provide approximately 57 off-street parking spaces (prior to Agency clearance, this land was occupied by approximately 18 apartment units, and by three stores and a restaurant with lodgings above). The site also contains a portion of a 67-space parking lot owned by the State of California. Vehicular access to the existing parking lots is provided on Grove and Fulton Streets. The Redevelopment Agency land had in the past been scheduled for clearance by the Agency prior to sale; clearance would occur prior to sale for the garage or any other new development on the site.[3]

---

[1] Letter of January 30, 1977, from Paul D. Hardman, Chairman, The Pride Foundation, to Department of City Planning. On file and available for review at the Department.

[2] Letter of February 10, 1977, from Gene E. Suttle, Area Director, San Francisco Redevelopment Agency, to Parking Authority. On file and available for review at the Department of City Planning.

[3] Telephone conversation with Gene E. Suttle, San Francisco Redevelopment Agency, February 15, 1977.



EXISTING LAND USE

FIGURE 5

2. Site Description and Topography

The site is nearly rectangular, approximately 137 feet x 330 feet, and is situated approximately 52 feet above mean sea level. The surface of the site is relatively flat.

3. Geology, Soils and Seismicity

The site is underlain by sands and sandy clays, of moderate to high earthquake stability. There are no known active faults in the vicinity or within the City of San Francisco. The source of major seismic events is the San Andreas fault system, located about eight miles west of the site. For further information refer to Final PAC EIR[1] and the Blume report.[2]

4. Noise

Noise in the project area is almost solely generated by vehicular traffic. The Central Freeway's location, configuration, traffic mix and volume makes it the major noise generator in the project area. Another significant noise source is the Gough-Franklin Street one-way couplet, which carries a total average daily traffic (ADT) of about 36,500 vehicles. Noise levels on Fulton and Grove Streets are lower than on Franklin and Gough Streets due to lower traffic volumes. However, all streets bordering the garage site are used by trucks. Weekday noise readings taken between 2-5 p.m. at the south side of Grove between Franklin and Van Ness produces average L10, L50, and L90[3] noise levels of 76 dBA, 71 dBA and 64 dBA, respectively. Other noise level readings in the vicinity of the garage site can be found in the Final PAC EIR[1]

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[1] Op. Cit., San Francisco Performing Arts Center, Final Environmental Impact Report.

[2] "San Francisco Seismic Investigation" John A. Blume & Assoc. June 1974. On file and available for review at the Department of City Planning.

[3] L10 is the noise level in decibels (dBA) which is exceeded 10 percent of the time; similarly for L50 and L90. dB is an intensity or pressure of sound in decibels, while A indicates a scale built into sound level meters to take into account the varying sensitivity of the human ear to different types of noise commonly encountered in urban areas.

5. Plants and Animals

Most of the garage site is paved or occupied by buildings. A planting strip on the State of California parking lot measures approximately 200 feet x 6 feet, and comprises 3 Eugenia myrtifolia, 4 Pittosporum crassifolium, and 13 Eucalyptus (several varieties). Vines, weeds and ivy ground covers can be observed in the rear yards of the vacant buildings on the garage site. It can be expected that local birds frequently visit the site, including California gulls and pigeons.

B. Surrounding Area

1. Culture and History

Bordering the garage project on the east is the Civic Center, which has been proposed as an historic district. An administrative and cultural center, the San Francisco Civic Center is regarded by many scholars as the finest and most complete manifestation of the City Beautiful movement in the United States.[2] See Section B-6, Visual Setting, for additional information.

2. Climate

Generally, San Francisco climate is characterized by cool summers and mild winters. Coastal fogs are also characteristic. Winds are generally from a westerly direction and are persistent from May to August. Between October and April, the strongest winds flow from the south, as well as from the west and northwest.[3]

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[1] Op. Cit., pp. 46-47 and 160-162.

[2] Ibid., pp. 196-200.

[3] Proposed Stonestown Shopping Center Renovation Project, San Francisco, California, EE76.74, Final Environmental Impact Report, pp. 14-15.

3. Air Quality

Air quality at the project sites is affected by pollutants from the on-site parking lots and from remote sources. Air quality measurements have been taken by the Bay Area Air Pollution Control District at the 939 Ellis Street Station, about half a mile north of the project. Applicable District standards on carbon monoxide (CO), a principal source of air pollution from automobiles, are 35 parts per million (ppm) for the one-hour average and 9 parts per million for the eight-hour average. In January 1976, a month with high CO concentrations, data gathered at the Ellis Street Station indicate the one-hour standard was not exceeded and the eight-hour standard was exceeded on one day. In April 1976, a month with low CO concentrations, neither the one-hour nor the eight-hour standards were exceeded.[1]

The proposed project is within the Bay Area Air Quality Maintenance Area (AQMA)[2] for photochemical oxidants, particulate matter and sulfur dioxide.

4. Transportation

The garage site is served by four transportation modes: private vehicles, public transit, bicycles, and walking.

a. Street System/Parking. Characteristics of the street network in the project area are shown on Figure 6. Three of the four streets bordering the site have been classified as Major Thoroughfares.[3] Existing

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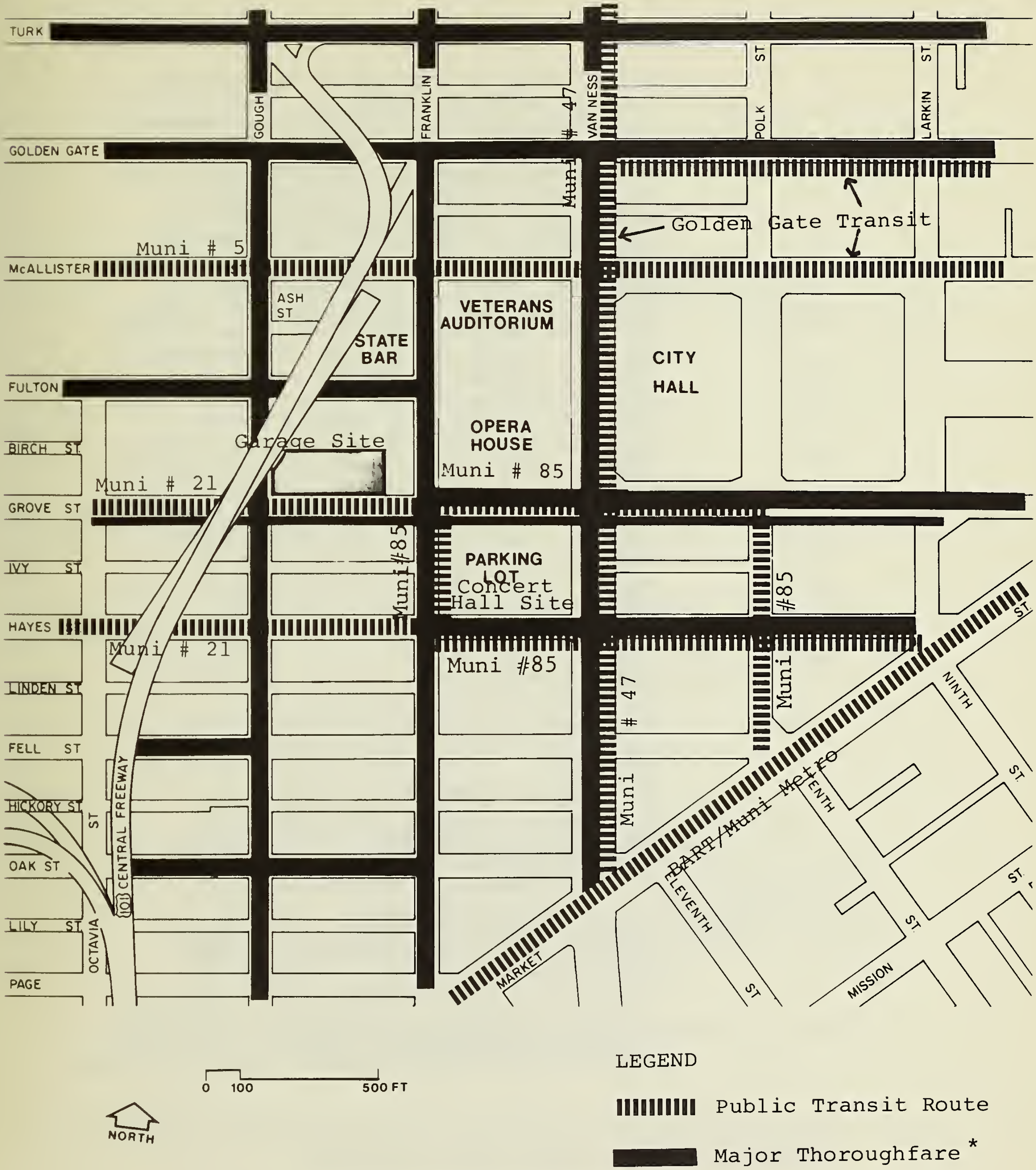
[1] Bay Area Air Pollution Control District Technical Services Division, Contaminant and Weather Summary, January 1976 and April 1976.

[2] An AQMA is defined as an area with the potential for exceeding any national ambient air quality standard in the period from 1975 to 1985.

[3] Major thoroughfares link districts within the city and distribute traffic from and to freeways; these are routes generally of City-wide significance, and are identified in the Transportation Element of the Comprehensive Plan, City Planning Commission Resolution Number 6834, April 27, 1972, Thoroughfares Plan.



LEGEND

▮▮▮▮▮▮▮▮ Public Transit Route

■ Major Thoroughfare *

▬ Bicycle Route *

* Transportation Element of the Comprehensive Plan. Thoroughfares Plan and Bicycle Plan.

PRESENT TRANSPORTATION CONDITIONS

FIGURE 6

traffic counts and capacity of local streets have been tabulated in Table 2. Access to and from the Peninsula and East Bay is provided by US 101 (Central Freeway), with its nearest on- and off-ramps located two to three blocks north of the site. Of the 57 off-street parking spaces on the garage site, 26 are used for public parking; those located at the western portion of the site are used by City and State employees. Within the three-block area surrounding the site, approximately 3,800 parking spaces are available - 1,000 on the streets and 2,800 in lots and garages. The Commerce High site provides the largest number of public parking spaces (326 in the evening) in the immediate area. All existing parking spaces on this lot would be displaced by the proposed concert hall (Performing Arts Center), which has been scheduled for construction in early 1978. Other off-street parking spaces are mostly located below the Central Freeway structure. A detailed description of the parking conditions and facilities in the project area can be found in the garage feasibility report.[1]

b. Public Transit. Transit services available in the general project area include those of the San Francisco Municipal Railway (Muni), Golden Gate Transit, and Bay Area Rapid Transit (BART). Public transit within a block of the project includes Muni Line Numbers 5, 21, 47, and 85. Additional discussion on the operational characteristics of the public transit systems can be found in the Transportation Appendix of the PAC EIR.

c. Bicycling. While all streets in the project area can be used for bicycles, only Grove Street has been officially designated as a bicycle route in the Transportation Element of the City's Comprehensive Plan, while Polk Street is shown as a street to be improved as a bicycle route.[2] Neither street has separate bicycle lanes.

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[1] Op. Cit. San Francisco Performing Arts Center Parking Garage, Revenues Preliminary Design and Cost Estimates.

[2] Op. Cit. Transportation Element, Bicycle Plan, P.21.

TABLE 2

STREET CAPACITY AND UTILIZATION

Street	Number of Traffic Lanes	ADT[b]	Vehicles per Hour[b] Directional Capacity[c]	Vehicles per Hour[b] Directional Traffic P.M. Peak
Franklin[a]	3	21,500	2,700	1,700
Grove	4	5,400	1,100	260
Gough[a]	3	15,000	2,700	1,100
Fulton	2	6,100	500	360
Van Ness	6	39,000	2,300	1,500
Hayes	4	10,000	1,100	600
Central Fwy (US 101)	6	87,000	4,500	3,350

ADT = Average Daily Traffic

(a) One-Way street with additional peak hour tow-away lane.
(b) Approximate for segment adjacent to project site.
(c) Capacity at Level of Services "D", which is defined as traffic approaching unstable flow with service volumes approaching 0.9 of capacity. Highway Research Board, Special Report 87 "Highway Capacity Manual - 1965", National Academy of Sciences, National Research Council, Publication 1328.

Sources: Materials on file at Traffic Engineering Division, City and County of San Francisco

d. Walking. All streets in the project area have paved sidewalks for pedestrian traffic. Pedestrian movements are unobstructed by the double-decked Central Freeway, which defines the site's western boundary. Sidewalk widths adjacent to the garage project are ten (10) feet on both Grove and Gough Streets.

5. Land Use:

Mixed land developments are found in the project vicinity. Property adjacent and to the east is occupied by a parking lot and an auto repair shop. Farther east are the War Memorial Complex, City Hall, and several Federal and State buildings. Located across Grove Street from the project is a mixture of residential, commercial, and light industrial buildings. To the immediate west of the project is the Central Freeway, constructed over a parking lot. Bordering the site on the north are three apartment buildings and a hotel. Located among these buildings are several parking lots. (Refer to Figure 5, page 13, for the location of structures and scale of development in the project area).

Buildings which are under construction or will be constructed in the vicinity of the project include the California State Bar Annex,[1] located to the immediate south of the existing Bar building; the Opera House addition, to be located behind the existing Opera House, and the Performing Arts Center, to be located on the Commerce High School site, with its project-related alterations. (See PAC EIR and Table I, page 3).

A portion of the garage site fronting on Grove Street is within a C-2 (Commercial Business) district, while the remainder is within a C-M (Heavy Commercial) district. Automobile parking is a principal use in either of the above zoning districts. The site has a building height limit of 96 feet and no bulk requirements. Refer to the PAC EIR for zoning in the Civic Center area.[1]

---

[1] Certificate of Exemption issued on January 9, 1976, as an ongoing project approved prior to November 23, 1970, under File No. EE 75.487.

The Western Addition Redevelopment Plan designated the garage area for "Public Use", which includes public buildings and Civic Center related facilities.[2] A review of the project by the Redevelopment Agency would be required as part of the approval process, as the property is primarily owned by the Agency (the portion of property owned by the State of California would have to be acquired as well). All structures on the Redevelopment Agency property would be demolished prior to the transfer to the City and County, or to any other buyer, pursuant to the Redevelopment Plan.

The Civic Center portion of the City's Master Plan [3] does not specify land use for the garage site, which is immediately to the west of the boundary of the "Core Area". Policy 2 of Objective Three calls for locating parking facilities beyond the western periphery of the Civic Center Core, with direct vehicular access to major thoroughfares. Policy 3 calls for providing and pricing parking for short-term visitor use, and for discouraging long-term parking.

The Transportation Element of the Master Plan calls for locating short and long-term parking in areas peripheral to the downtown district, as the site is, subject to certain criteria. These criteria include such items as providing space for van and car pool vehicles and compact cars, for vehicles of physically-handicapped persons where appropriate, and for motorcycles and bicycles. Other criteria call for a demonstrated demand for additional parking resulting from a specific development which cannot be diverted to transit or met by existing facilities, and for ready access from freeway ramps or major thoroughfares.

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[1] Op. Cit., p.40

[2] Official Redevelopment Plan for the Western Addition Approved Redevelopment Project Area A-2, Board of Supervisors Ordinance No. 273-64, October 13, 1964, and Ordinance No. 264-70, August 3, 1970.

[3] Civic Center Plan, a part of the Comprehensive Plan, City Planning Commission Resolution No. 7216, July 25, 1974.

Additionally, criteria call for consideration being given to inclusion of other uses in order to maximize use of scarce land resources and to integrate the structure into the surrounding neighborhood; for the structure being in scale with existing structures in the area, and, when located in commercial districts, inclusion of commercial frontage in order to avoid blank street level facades; and for all or portions of the facility being convertible to other uses if demand for parking is reduced in the future. The Transportation Element also calls for parking in the downtown area to be within structures rather than on lots, in order to conserve space and minimize displacement.[1]

6. Visual Setting:

The garage site is situated on the edge of the Civic Center area, which consists of an aggregation of monumental civic buildings and an open plaza considered the grandest of all American Civic Complexes.[2] Directly across Franklin Street to the east of the project is the War Memorial Complex, which includes the Opera House and Veterans Auditorium and is a designated City landmark. Surrounding the site are multi-story low-rise commercial and residential apartment buildings, with the surface parking lots providing all of the open space in the immediate area. The double-decked Central Freeway west of the project is a dominant visual element which can be viewed from all approaches to the site. Figures 7A, 7B, and 7C present photographic views of the garage site and its surroundings. Refer to the PAC EIR (pp. 34-35) for more description of Civic Center visual characteristics.

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[1] Transportation Element of the Comprehensive Plan, Amendments Regarding Parking as adopted by the City Planning Commission under Resolution No. 7647 on January 20, 1977: Objective 1, Policies 3 and 4 of the Downtown Transportation Plan; and Objective 1, Policies 1, 4 and 5 of the Citywide Parking Plan.

[2] Landmarks Preservation Advisory Board Final Case Report, War Memorial Complex, September 4, 1974.

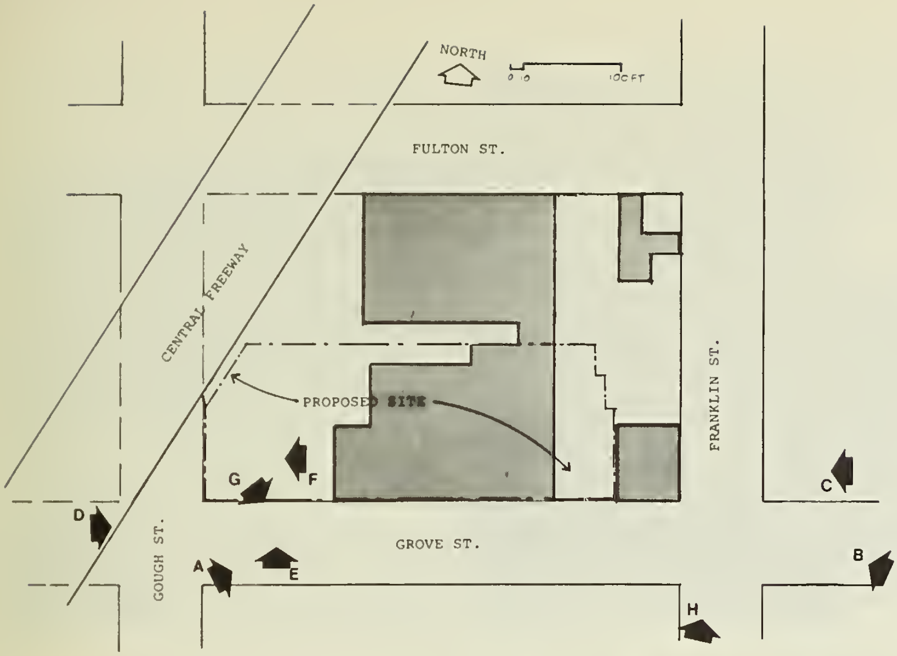
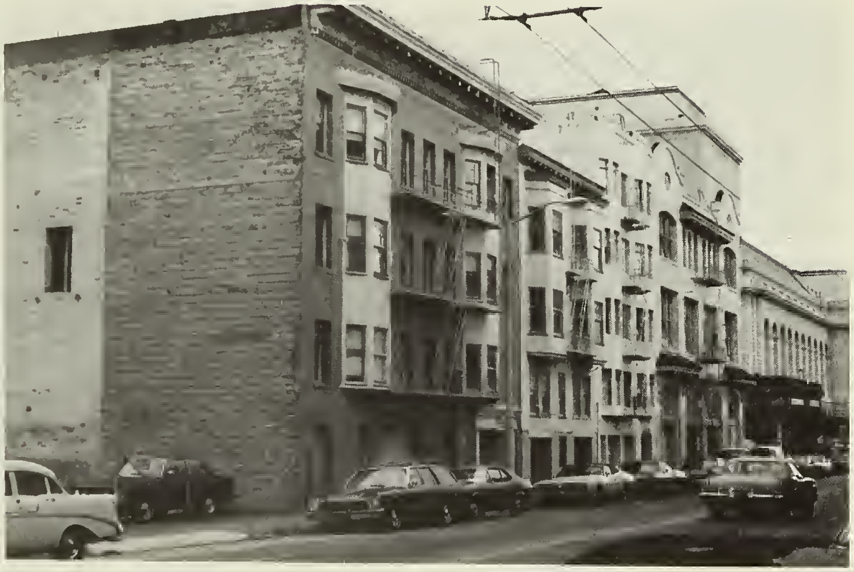
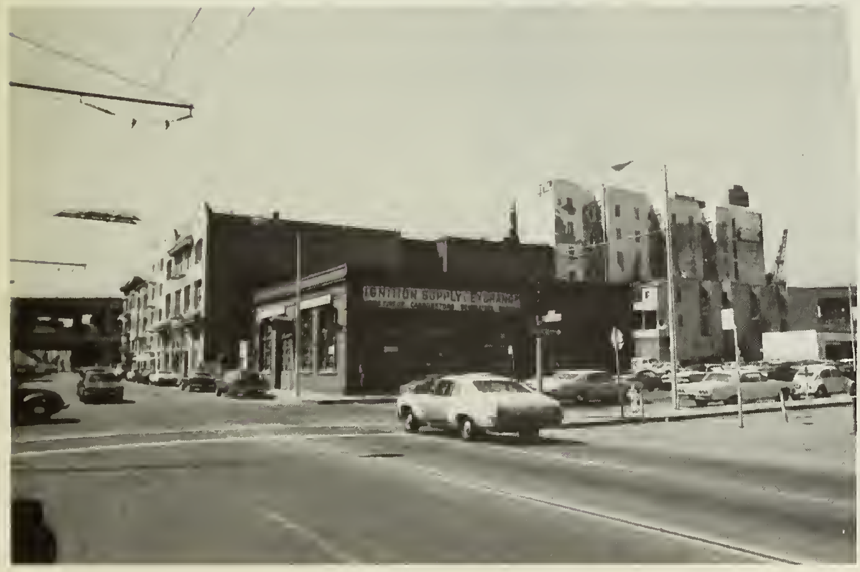


PHOTO INDEX MAP

A

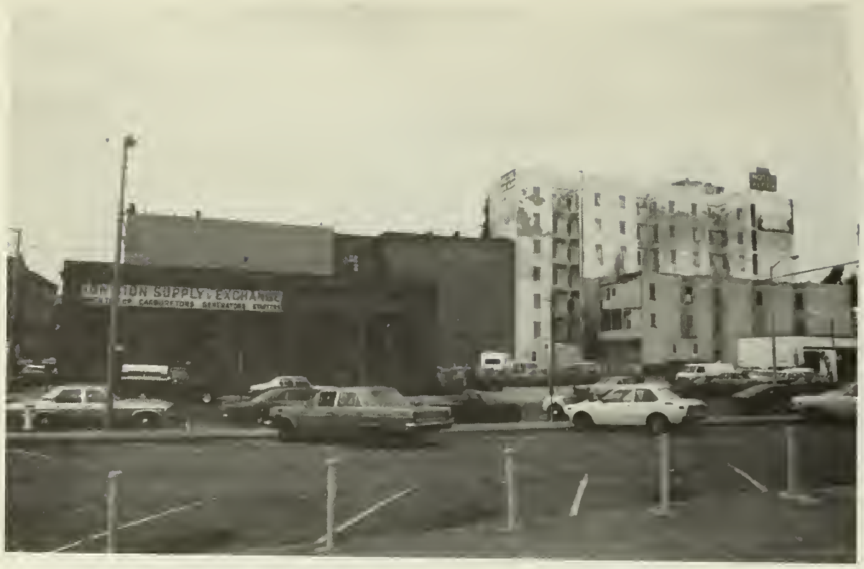




B

PHOTOGRAPHIC VIEWS

FIGURE 7A



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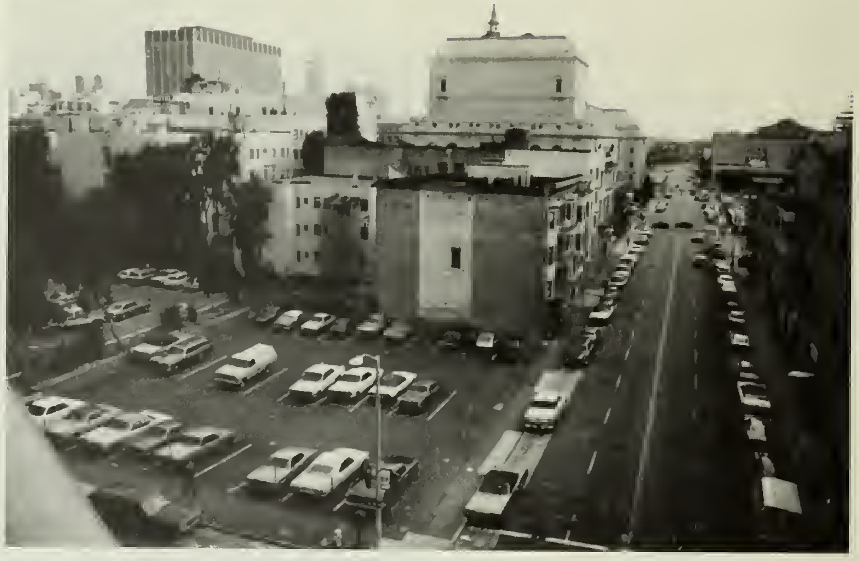

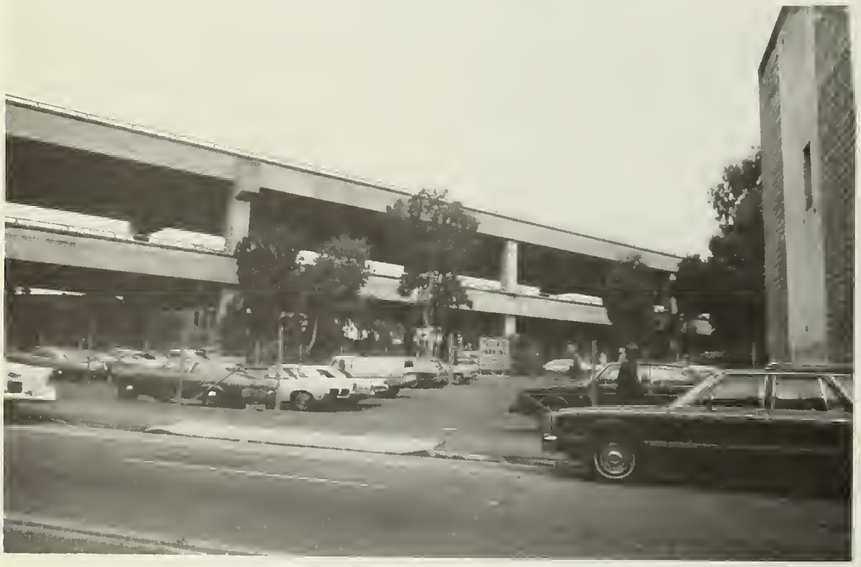

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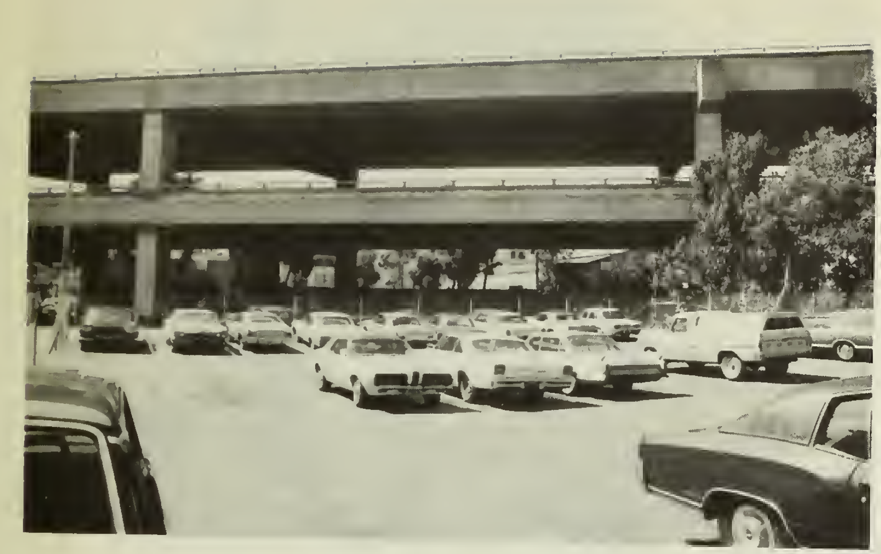
PHOTOGRAPHIC VIEWS

FIGURE 7B



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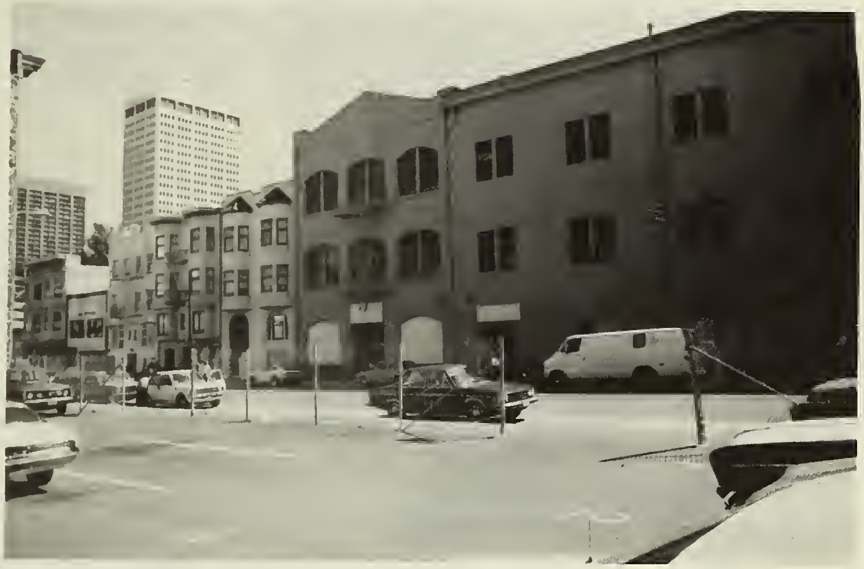

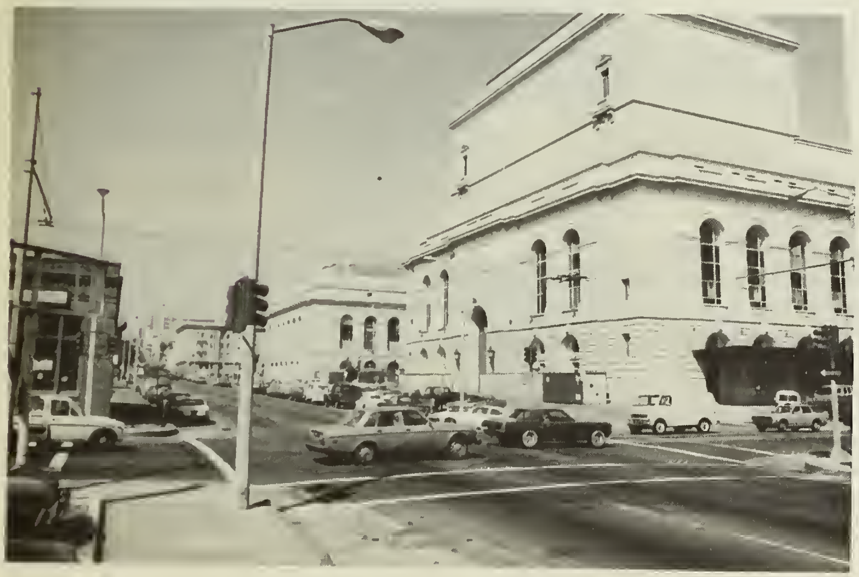

H

PHOTOGRAPHIC VIEWS

FIGURE 7C

IV. THE ENVIRONMENTAL IMPACT OF THE PROPOSED ACTION*

A. Land

1. Soil Stability:

The stability of soil would not be affected, as the weight of soil which would be removed in the basement excavation would be comparable to the weight of the new construction.

2. Seismic Hazard:

Since no major alteration of soil or water table at the site would be required, the seismic characteristics of the area would remain unaffected. However, the proposed structure would be subject to the seismic hazards which affect all construction in San Francisco. (See Section III (A) 3)

B. Microclimate

1. Wind:

Under present conditions some of the westerly winds are deflected by the Central Freeway structure. Erection of the garage would only slightly alter the bulk and volume of existing buildings on the site; it would cause no major changes in velocity, force, and flow pattern of the wind in the project area.

2. Shadows:

The proposed garage would create shadows on Grove and Gough Street as well as on abutting buildings. The location and shape of the shadows cast during specific periods are shown in Figure 8.

C. Air Quality

The garage would not directly emit pollutants. Indirect impacts would be due almost entirely to vehicular traffic. A detailed analysis of carbon monoxide emissions was pre-

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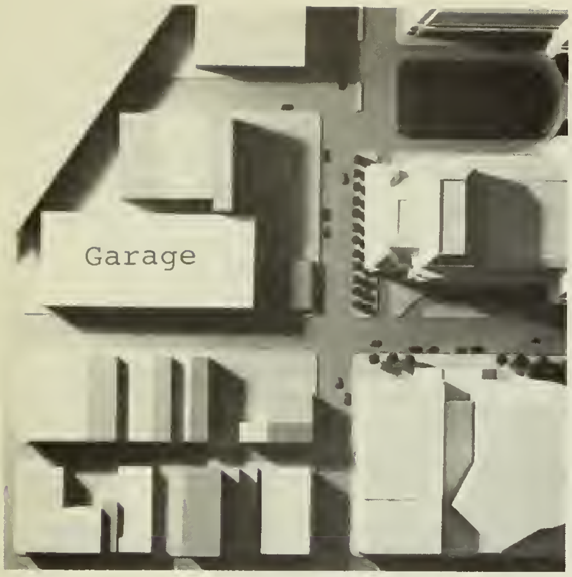
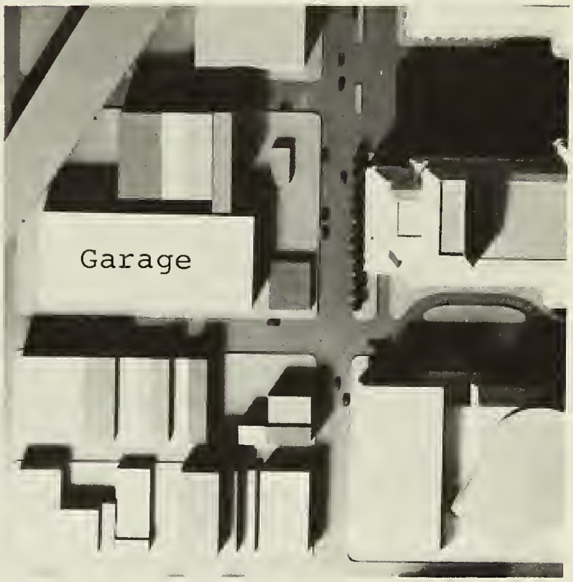
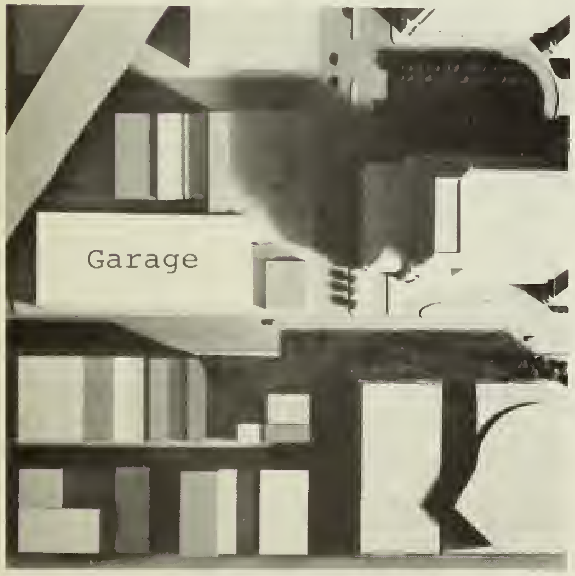
* Various possible effects of the project that were determined not to be significant by the Department of City Planning are not discussed in detail in this report, as is indicated generally in such paragraphs of this Chapter.



Late-Afternoon, Summer



Mid-Afternoon, Winter



Mid-Morning, Winter

North

SHADOW STUDY

FIGURE 8

pared in the PAC EIR for the proposed 400-space garage located on the Commerce High site. In that EIR, the 1980 area-wide carbon monoxide levels, including pollutants generated by the proposed concert hall and garage, were estimated to remain below State air quality standards.[1] While this project might result in as much as a 50 percent increase in carbon monoxide (CO) over the earlier garage proposal, its area-wide pollution concentration would still be expected to fall below the State standards, as shown below:

Estimated Carbon Monoxide Concentrations

	One-Hour Average (mg/m^3)	Eight-Hour Average (mg/m^3)
Without Garage	2.60	1.50
With Garage	3.65	2.10
Standards	40.00	10.00

At the garage site, maximum roadside emissions from the garage would occur on Grove between Gough and Franklin Streets. The amount of carbon monoxide at the proposed location would likely not exceed that estimated for the Commerce High School site garage, as the peak hour traffic volume on Grove is less than half that on Van Ness Avenue or Franklin Street. Carbon monoxide pollution concentrations on Franklin and Gough Streets would be comparable to that estimated for the Commerce High School site, based on Van Ness Avenue traffic. (Franklin and Gough Streets have lower base traffic, yet they would be affected by a garage with larger capacity; the opposite is true of Van Ness Avenue.) The PAC EIR projected 10.3 mg/m^3 and 3.9 mg/m^3 CO concentrations for Van Ness traffic in 1980 on one and eight-hour averaging times, respectively. The pollutants generated in the garage itself would partially be collected by the ventilation system and released at the roof, which would be located at approximately the elevation of the upper deck of the Central Freeway.

D. Transportation and Circulation

The proposed garage would be constructed to replace existing parking displaced by the concert hall and to serve the expanded Performing Arts Center facilities. The traffic impact is primarily related to activities at the Performing Arts Center, Opera House and other Civic Center facilities during weekdays; at night or weekends, traffic impact would be primarily related to Performing Arts Center activities. These activities and their transportation impacts have been discussed in the PAC EIR.[1] The transportation impacts of this and the previously proposed garage would be similar, as both garages are designed to serve the same traffic generators. The major difference between the two proposals is in the additional 165 new parking spaces, the area of the parking impact, and the magnitude and location of traffic impacts. The proposed 600-car garage would be able to accommodate most if not all of the present day and night demand in the project vicinity.[2] Except for the streets immediately surrounding the project, the areawide and regional traffic routes affected are largely similar to those of the previous proposal.

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[1] Op. Cit., pp 55-55a.

1. Local Access and Street Traffic:

   The proposed garage would have its access points located along Gough and Grove Streets and an exit to Fulton Street to be used only following evening performances. A fully loaded garage would produce about 300 vehicles each on Grove and Gough Streets. Such traffic volumes would only occur immediately preceding and following an evening performance at the Opera House and/or the proposed concert hall, at which time the through traffic volume on these streets is normally light. About 100 vehicles would impact Grove, Franklin and Gough Streets preceding and following a weekday matinee performance, as more people use the existing transit services and charter buses on weekdays than on weekends or evenings, and as fewer garage spaces would be available for weekday matinees. One hundred additional non-performance-related vehicles would exit the garage during the peak hour, based upon present Civic Center Auto Park use. In the event that the matinee traffic should occur during the P.M. peak hour, with the total of 200 additional vehicles the resulting traffic volumes on Franklin, Gough and Grove Streets would be 1900, 1300 and 700 vehicles per hour respectively. These traffic volumes would constitute about 95, 50 and 30 per cent of hourly capacity of the corresponding streets at Level of Service "D".[3] During the A.M. peak hour, which in the vicinity of the proposed garage occurs between 9 and 10 A.M., the garage would already have accommodated its major influx, based upon present Civic Center Auto Park use, and no more than 100 additional vehicles would be anticipated. Corresponding hourly traffic volumes, as above, would be 1600, 1200 and 500 vehicles, with hourly capacities of 2000, 2000 and 1100 vehicles.[4] Weekday matinee performances would generally be scheduled so as to avoid generating traffic during the local P.M. peak traffic hours. Since there is more than one traffic lane in each flow direction on Gough and Grove Streets to accommodate garage traffic, through traffic flow on these streets would not be greatly affected. Assuming no major traffic volume increase over the next several years, the peak hour capacity of the surrounding streets would be able to accommodate the additional traffic without exceeding Level of Service "D". Residences on Fulton Street would not be affected by garage traffic, as vehicles using the Fulton Street exit following evening performances usually would turn right on Fulton to reach Franklin Street.

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[1] Op. Cit., pp. 56-57 and 120-159.

[2] Tudor Engineering Company estimate

[3] As defined on Table 2, p. 19 .

[4] Calculations on file and available for review at the Department of City Planning.

2. Transit Operations:

Shifts of transportation mode could occur as a result of the additional parking provided by the garage project. Motorists using the Civic Center facilities in general and patrons of the Performing Arts in particular could be affected, as discussed in the following paragraphs.

Weekday Matinee - During weekday matinee performances, the quality of transit services in the project area is better than on weekends or nights, and waiting time is shorter than in the evening. When considered in conjunction with the relatively high traffic volumes on nearby streets following each performance (weekdays, 4-5 p.m.), and pre-emption of garage spaces by other daytime parkers, this would tend to prevent any shift by performing arts patrons from transit to the automobile.

Evening and Weekend Performances - During the evening, additional vehicular traffic would be generated by anticipated new performances at the proposed Performing Arts Center concert hall complex. In addition, transit service is less frequent in the evenings, while more free curb parking spaces in the project area are available than during the day. A 20 to 30 percent traffic volume increase would occur on nearby streets on performance evenings as a result of concurrent performances at the Opera House and Concert Hall. Similar transportation conditions could be anticipated during concurrent weekend performances.

Vehicular traffic generated by the project would cause no major impact on transit operations, as both

Gough and Franklin Streets have no transit services. At present, transit operations on Grove Street occur in the eastbound direction, with weekday daytime headways of 8 to 10 minutes and evening headways of 15 minutes. It is anticipated that the total garage traffic preceding or following a weekday matinee performance would affect some six transit vehicles on Grove Street. A weekday evening performance would affect some four transit vehicles with less than 20 percent occupancy for a one-block distance. The two eastbound traffic lanes on Grove Street immediately south of the project would reduce the impact of vehicular traffic on transit operation.

3. Parking Impact:

The proposed garage would provide additional parking spaces in an area where daytime parking demand often exceeds supply.[1] Of those, some 40 spaces would be assigned weekdays to the Department of Public Works. Initially, 360 spaces are anticipated for weekday transient parking, and 200 are anticipated for monthly ticket holders (175 of whom are presently utilizing existing parking that would be displaced.[2]) The ratio of parking spaces allocated between transient and monthly parkers would essentially be the same as now exists on the Commerce High School lot. Spaces now provided on an interim basis as surface parking would become more permanent in nature as garage stalls.

With respect to the Master Plan for the City and County of San Francisco, parking on this site would be most appropriate to the extent that it is limited to replacing the short-term parking now provided on an interim basis on the lots being displaced, including the Commerce High School site.

4. Bicycle/Pedestrian Impact:

Additional vehicular traffic movements would occur on Grove Street, which is a designated bicycle route west of Franklin Street. There would be more conflicts between automobiles and bicyclists using Grove Street than presently occur.

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[1] Op. Cit., Parking Garage Revenues, Preliminary Design, and Cost Estimates, pp. 11-16.

[2] Op. Cit., p.14.

Pedestrian traffic would be generated preceding and following performances at the Opera House or the proposed Performing Arts Center. Pedestrians using the garage would create increased pedestrian-vehicle conflicts at the Franklin/Grove Street intersection and possibly increased traffic delay.

5. Concert Hall Effects:

An additional average of some 50 daily trips would be generated by the expansion of Concert Hall facilities. About half of these would be automobile trips requiring parking accommodations at the proposed garage.

E. Water

1. Runoff:

Runoff from the project site drains into the San Francisco combined storm and sanitary sewer system. The project would have no noticeable effect on runoff since the proposed structure would have site coverage similar to that of the present buildings and paved parking lots.

2. Groundwater:

The level of the proposed basement floor slab would be approximately 9 feet below the existing street grade with some footings extending down an additional 4 feet. The groundwater level is about 10 feet to 12 feet below the existing grade.

During construction it would be necessary to lower the present water level in the area of the site by about 7 feet. This would affect the water level for perhaps 30 feet beyond the building area and would have no significant influence on existing adjacent construction or utilities. Permanent drainage required to prevent uplift on the basement slab would lower the present water table about 2 feet within the area of the building, and would have no effect on adjacent property.

F. Utilities and Services

1. Water Supply:

In addition to the demand generated by the washroom (with one toilet, sink, and wash basin), water would be used for landscaping purposes. The peak demand for water would be approximately 125 gallons per minute, which could be supplied by the existing 8" main running along Grove Street. Total water consumption would not exceed 3,500 gallons per day and may be less, depending upon the varieties of plants used in landscaping. This would essentially be new water consumption, as three of the four existing buildings on the garage site are vacant. The Concert Hall modification would generate an additional maximum demand of some 1,000 gallons per day.

2. Wastewater Service:

Wastewater would be solely generated by the semi-public washroom described in the previous paragraph. The dry weather flow to the sewer system would be approximately 1,000 gallons per day. This would represent about 0.0017 percent of the average dry weather flow presently treated per day at the North Point Water Pollution Control Plant. The public sewers in the project vicinity are combined sewers designed to accept runoff for the once in five year storm. The sewage from the project would be given primary treatment at the North Point Water Pollution Control Plant, which the San Francisco Bay Regional Water Quality Control Board has cited for nonconformance with the required water quality standards.[1] A maximum of 5 percent increase in wastewater over the original proposal would be generated by the Concert Hall modifications.[2]

3. Solid Waste:

Less than one cubic yard of solid waste would be generated per week. The Golden Gate Disposal Company which provides services in this area had previously indicated that handling of the wastes would present no problems.[3] Approximately half a cubic yard of solid waste per day would be generated by the Concert Hall modifications.

4. Energy:

Electrical energy would primarily be used for lighting and for ventilation equipment to be activated by automatic air pollution sensoring devices. Based upon a 17-hour demand for electricity per day, the total connected load would be 551 KW. The average monthly use would be 167,000 KWh, as projected against an annual use of 2,005,000 KWh. Based upon 200,000 square feet of total floor area, the electricity demand would be 0.76 KWh per square foot per month. Lighting intensity on the traffic lanes would be about 10 foot candles. A similar size office building would probably demand three times the amount of electricity as this project. The anticipated daily electric load distribution curve is shown in Figure 9; the annual electric load distribution would essentially remain constant, as there would be only a two percent difference in monthly electricity consumption between standard time and daylight saving time periods.

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[1] Op. Cit., PAC EIR, p. 58

[2] Ibid., p. 58

[3] Ibid., p. 59

The garage would generate no demand for fossil fuels and natural gas.

5. Telephone Service:

The Pacific Telephone and Telegraph Company would be able to provide one private and one public telephone in the proposed garage.[1] The Concert Hall modifications would generate an additional demand for several telephones.

6. Fire and Police Protection:

The San Francisco Fire Department has stated that no additional personnel or equipment would be required to render service in the project area.[2]

The proposed garage by itself would generate no direct demand for police protection.

G. Land Use:

As the site is within the Western Addition Redevelopment Area and is scheduled for clearance before any transfer to a developer, the loss of existing structures (and former uses) on the site is not considered an impact of the project itself.

The height of the garage would conform to the City's zoning

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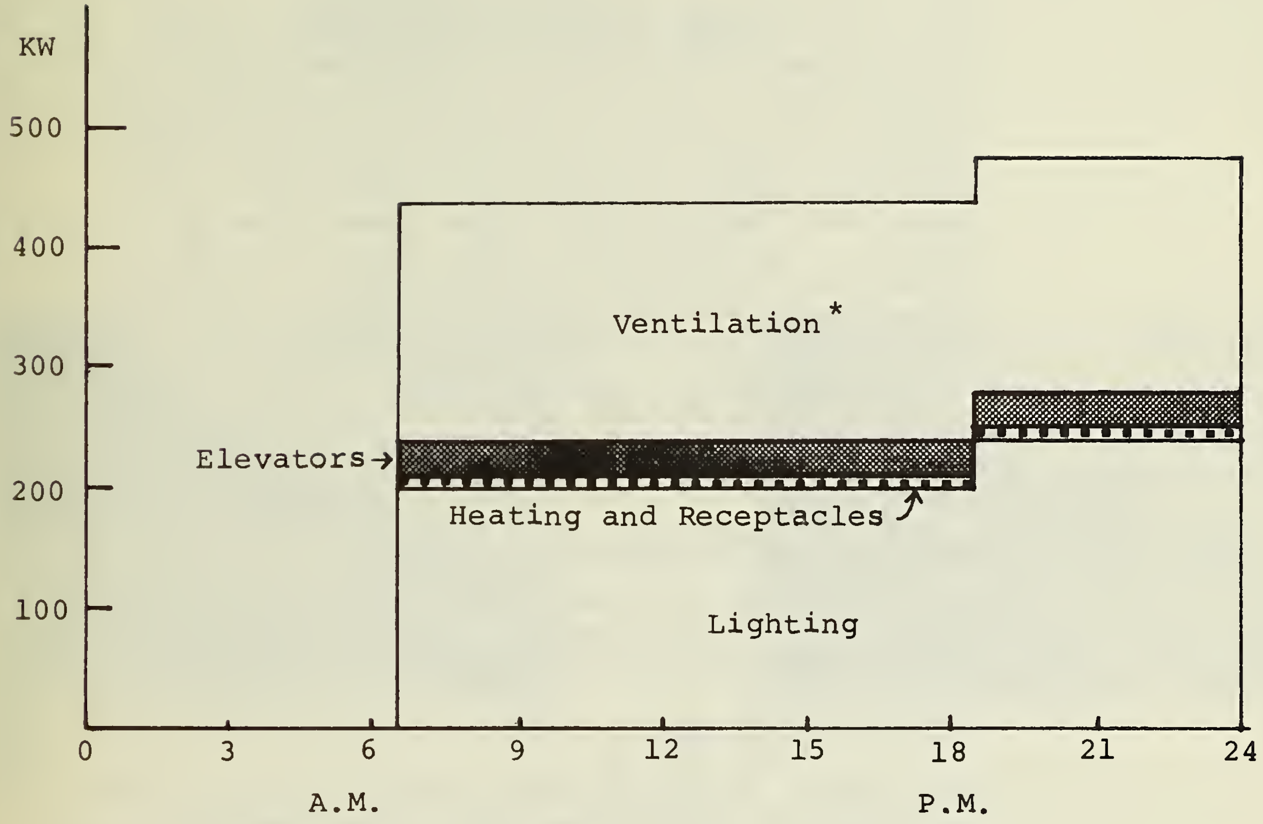
[1] Op. Cit., PAC EIR, p. 66.

[2] Ibid., p. 66



*Assuming continuous activation of ventilation equipment

DAILY ELECTRICAL LOAD DISTRIBUTION CURVES

FIGURE 9

regulations. Construction of the garage would change the predominant land use on this block from vacant commercial/residential to parking, which is a principal use permitted by the City Planning Code, and a public use permitted by the Redevelopment Plan. With respect to the Master Plan of the City, the parking structure would be appropriate to the extent it is integrated into the neighborhood.

H. Visual Impact:

The proposed project would convert the existing group of predominantly residential buildings into a single structure with stronger horizontal facade elements. The visual effect would be of a conservative design employing horizontal bands designed to be compatible with the nearby Opera House and the proposed concert hall,[1] of a larger scale than structures across Grove Street to the south. The garage would remove some view of the freeway structure and parking lot from persons in buildings located to the north and south of the project. See Figures 10A and 10B for additional information on visual impact of the project, and Figures 7A, 7B, and 7C (pp. 23-25) for additional photographs of the vicinity. The concert hall modifications would not change the bulk of the Performing Arts Center.

I. Archaeological and Historical:

The site presents no visual evidence of remains of archaeological or historical interest, and is within an area of no known potential for archaeological finds.[2]

J. Plant and Animal Life:

Approximately 15 trees or bushes would be removed for the construction of the proposed garage. New vegetation would be introduced on three sides of the structure. These plantings might serve as habitat for urban fauna.

K. Health and Safety:

During the nine-month construction period, construction noise and vibration would take place intermittently. The highest noise levels would probably occur in the first three months - during the foundation construction period,

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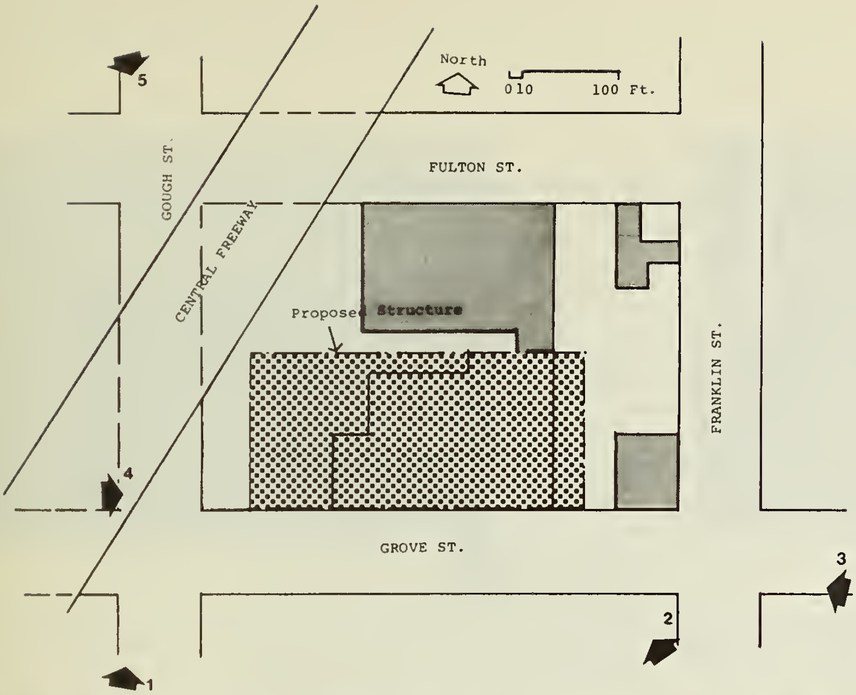
[1] Tudor Engineering Company, on behalf of Sponsors of the Performing Arts Center, Inc.

[2] San Francisco Archaeological Sensitivity Map, James Heid, Consulting Archaeologist. On file and available for review at the offices of the Department of City Planning.



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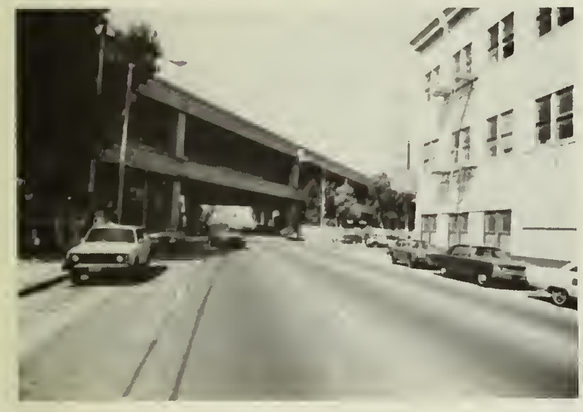
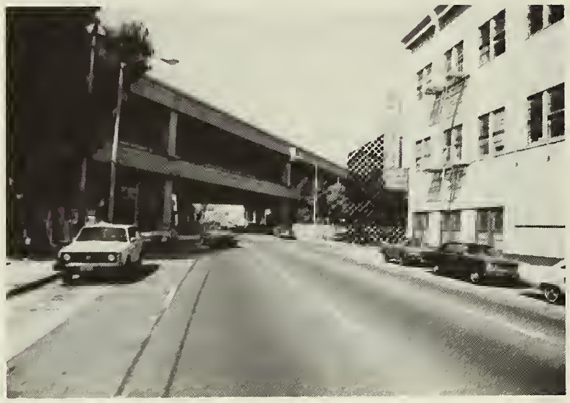


1

EXISTING

PROPOSED



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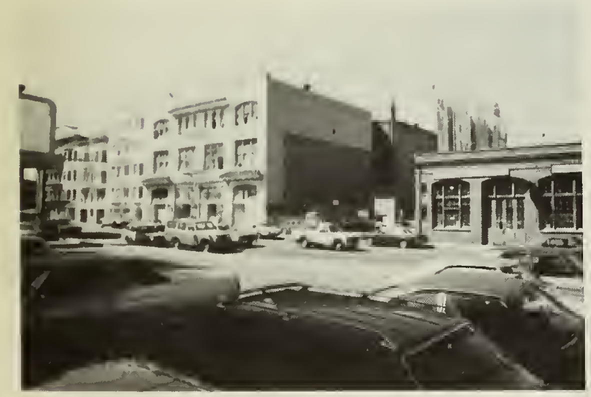

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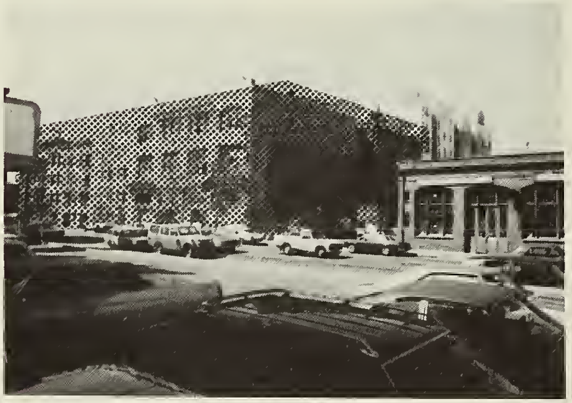
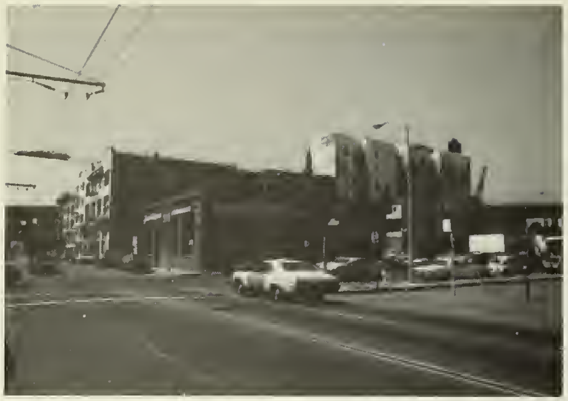


2

VISUAL IMPACT STUDY

FIGURE 10A

EXISTING



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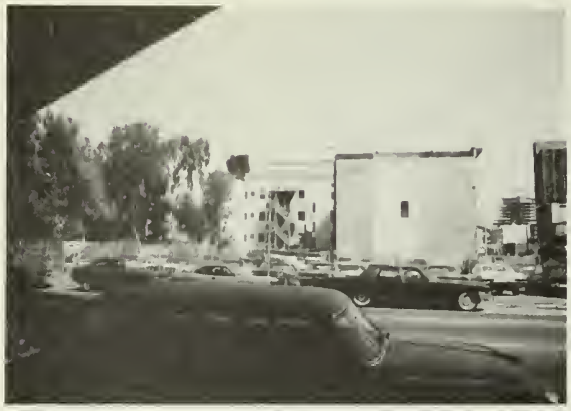

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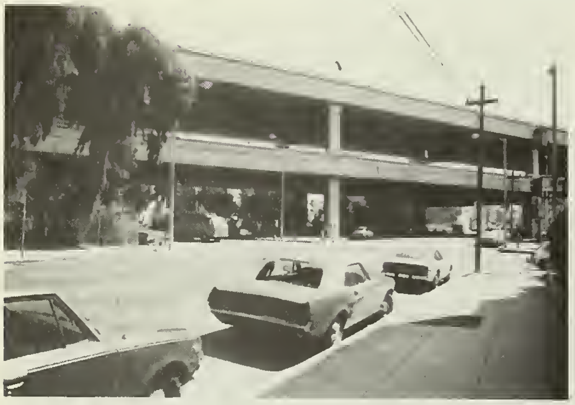

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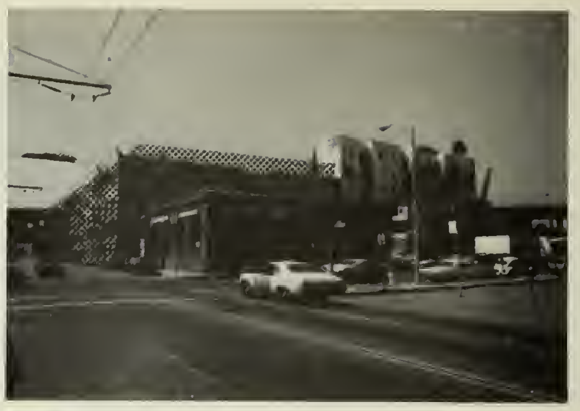
PROPOSED



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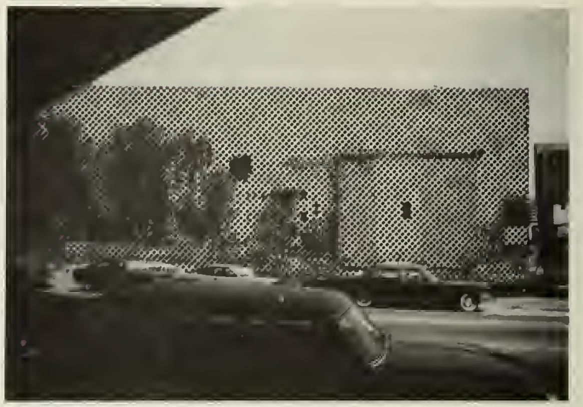

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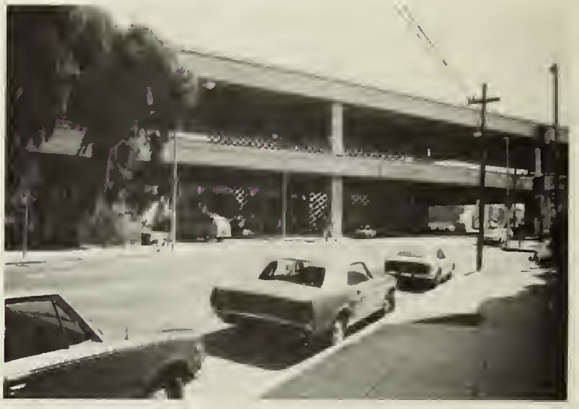

5

VISUAL IMPACT STUDY

FIGURE 10B

at which time the peak noise level might occasionally exceed 90 dBA at 100 feet from construction activities. This distance would include seven residential buildings, with approximately 70 units, and a 60-room hotel, located north and south of the project, respectively. In the absence of any physical barriers, construction noise of 90 dBA could be audible over background at approximately 600 feet from the construction site.

Upon completion, garage traffic would increase the sidewalk L10 noise level from approximately 76 dBA to 78 dBA on Grove Street south of the garage; a difference of 2 dBA in continuous noise level is not perceptible. The noise impacts would be offset through a reduction of direct freeway traffic noise transmission to buildings southeast of the project. However, noise on the project site itself would be increased as a result of additional traffic operations.

Construction hazards would be present during the construction phase, affecting pedestrians passing the project area.

The concert hall modifications would result in shifting the location of garage traffic noise on Grove Street one block to the west. Traffic noise on Van Ness Avenue and Hayes would also be lower than that estimated in the earlier proposal. (PAC EIR)

L. Socioeconomic

Construction of the garage would create an approximate equivalent of 40 person-years of jobs for construction and related industry workers. Upon completion, the garage would generate 3 full-time equivalent jobs for parking and maintenance personnel.

M. Performing Arts Center Design Modifications

In relation to the impacts discussed in the Final PAC EIR, changes in impacts would occur in the following areas due to construction of the Performing Arts Center:

Additional trip generation due to expansion of facilities;

Reduced traffic, noise, and air quality impacts on streets bordering the performing arts center site;

Increase in water consumption, wastewater, solid waste, and telephone services, proportional to the expansion of facilities.

V. MITIGATION MEASURES PROPOSED TO MINIMIZE THE IMPACT

A. Design, Including Energy Mitigation:

Design measures incorporated into the proposed garage include landscaping at the street level to soften the visual prominence of the structure; a solid wall at the north side of the structure to eliminate the noise and air pollution which would affect the residents of adjacent buildings fronting on Fulton Street; and openings on three sides of the garage above grade to minimize the energy needed for artificial lighting and ventilation. Energy use would also be mitigated by use of automatic air pollution sensor devices to operate ventilation equipment when CO concentration reaches a predetermined level, and reducing the level of lighting to a minimum in evenings when no performances are scheduled. As a public building, the garage design is subject to review for appropriateness by the Art Commission, a process which assists in providing compatibility of the building with its surroundings. See PAC EIR for proposed energy mitigation measures for the Performing Arts Center.

B. Construction:

During construction of the garage, measures would be taken to minimize hazards to the public and construction workers by fencing, and adherence by the building contractor to the CAL-OSHA requirements and other Federal, State and City laws governing construction activities, including the Standard Specifications of the Department of Public Works. Construction noise levels would comply with standards of the City noise ordinace. Construction-related airborne dust would be controlled by wetting of dusty surfaces.

C. Archaeological and Historical:

If any material of potential archaeological or historical significance should be found on the garage site, the contractor would be legally bound to stop construction to permit professional evaluation of the find.

D. Traffic:

If required, pedestrian "Walk - Don't Walk" signals could be installed at the Grove/Franklin intersection to facilitate pedestrian flow and improve traffic safety. This is the responsibility of the Department of Public Works, and would be implemented only upon satisfaction of adopted warrants for the installation of such signals.

To facilitate traffic flow of vehicles leaving the garage after a performance, two additional points of egress would be provided, to be used only on these occasions. One of these would provide egress to Gough Street, and the other to Fulton Street. (See Figure 4, page 9).

E. Landscaping:

Landscaping in the setback areas adjacent to the west, south and east sides of the garage, would consist of California natives, which could be expected to maintain growth under conditions of low annual rainfall and with minimum watering after plants are established.

F. Wastewater:

Implementation of the City's Wastewater Plan[1], which calls for eventual phasing out of the North Point Water Pollution Control Plant, into which the wastewater from the garage site would be discharged, would ultimately lead to substantial compilance with the requirements of the Water Control Board.

G. Parking:

In order to reduce or eliminate monthly and/or all day garage users, the Board of Supervisors could adopt a rate schedule which would favor transient parkers and offer some or all of the monthly parking spaces exclusively to car pool users. This would be accomplished through two means:

a. A graduated rate structure in which the hourly incremental parking rates are increased for the third and subsequent hours; and

b. Gradually reducing the number of monthly permit parkers as demand increases for short-time transient parking on typical weekdays, based upon operating experience.

VI. ANY ADVERSE ENVIRONMENTAL IMPACTS WHICH CANNOT BE AVOIDED IF THE PROPOSAL IS IMPLEMENTED

Short-term adverse impacts resulting from the construction activities would be:

Increased noise and airborne dust;

Increased traffic impact around the project site due to construction vehicles;

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[1] "Draft Environmental Impact Report and Statement, San Francisco Wastewater Master Plan," City and County of San Francisco, and U.S. Environmental Protection Agency, February 1974.

Consumption of non-renewable energy and material resources.

Long-term adverse impacts of the proposed project would be:

Increased fossil fuel consumption, through making available a facility which provides for continuing automobile usage.

Increased traffic on nearby streets;

Increased air and noise pollution due to additional traffic;

Additional shadows;

A potential for personal injury and property damage due to seismic occurrences.

VII. ALTERNATIVES TO THE PROPOSED PROJECT

A. No Project:

Leaving the garage site in its present state would eliminate all the environmental impacts which the proposed project would create. However, as a result of construction of the proposed Performing Arts Center concert hall complex, traffic congestion and parking difficulty in the area would be exacerbated, both as a result of traffic and parking demand occasioned by additional performances, and the elimination of existing parking on the Commerce High lot. The site, in any event, is proposed for ultimate clearance and sale to a developer under the Redevelopment Plan.[1] In the event that the existing buildings on the site are not removed, then they must first be offered for sale to the original owners, prior to being advertised for competitive public bid. See PAC EIR for analysis of effects on concert hall site.

B. Use Alternatives:

Besides parking, a number of uses for the garage site are permitted under C-2 zoning, including retail business, services and housing. Any of these uses would eliminate or reduce the traffic and associated air quality and noise impacts from the site. The resulting weekday afternoon parking deficit would exceed 500 spaces if parking displaced by the concert hall construction is not replaced. Installation of commercial uses at the ground level of the garage is suggested by the Master Plan. At the present time, there appears to be no demonstrated demand for ground-level commercial facilities in the immediate vicinity of the project site. In addition, the cost of such ground floor commercial facilities would be far greater than the rental revenue produced therefrom, resulting in a negative return on the investment.[1]

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[1] Op. Cit., Western Addition Area A-2.

C. Design Alternatives:

The proposed design employs a structural system and an internal circulation pattern which would maximize the usage of building space. (See Figure 4.)

Placing the garage underground would eliminate some visual impacts and make the ground level property available for other uses. However, this would involve greater construction and operation costs and energy use due largely to excavation, lighting and ventilation requirements.

The garage could be so designed that the building could be converted to other use should parking demand decrease. The cost of such a design would be at least twice that of this proposal, resulting in a financially infeasible project.[1]

D. Garage Capacity:

A smaller garage would proportionally reduce the traffic and associated air and noise impacts in the project area. If the garage capacity were to be similar to that proposed for the Commerce High School lot (400 spaces), the local traffic impact would be similar to that discussed in the PAC EIR.[2] With a 400-space garage, local parking demand could exceed supply by more than 200 spaces during concurrent performance evenings at the Opera House and Concert Hall.

E. Garage Use Orientation:

The garage might provide parking only for transient users, without provision for monthly parking on weekdays, as suggested by the Civic Center Plan.[3]

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[1] Tudor Engineering Company.

[2] Op. Cit., pp. 56-57 and pp. 120-159.

[3] Op. Cit., Objective Three, Policy 3. Tudor Engineering Company letter to Mr. Calvin Malone, Department of City Planning, February 16, 1977.

Monthly parking demand which now exists in the area would then have to be accommodated elsewhere in the near vicinity or diverted to other forms of transportation access to the area--car pools, public transit, bicycle, walk. This would mitigate the tendency of the garage project to facilitate the energy intensive use of private vehicles.

F. Site Alternatives:

The garage was originally proposed to be located on the westerly portion of the Commerce High School lot. However, that site has subsequently been designated for the construction of the stage house, backstage facilities and additional rehearsal rooms, ancillary to the Concert Hall.

Potential alternative garage sites examined include parcels of vacant land in the project vicinity.

These are:

1. An underground site at the westerly portion of the former Commerce High School lot;
2. The parking lots under the Central Freeway and to the immediate west of the California State Bar;
3. Block bounded by Turk, Van Ness, Golden Gate, and Franklin Streets;
4. Western portion of the block bounded by Eddy, Van Ness, Turk and Franklin Streets.

An underground garage at the Commerce High location would require 3 to 4 times the estimated construction cost of the proposed garage project. Alternative Site 2 would require building partially underground and the removal of some 160 existing parking spaces. Alternative Sites 3 and 4 are located 3 and 4 typical city blocks, respectively, from the concert hall - a walking distance considered by the project sponsors to be too long for performing arts patrons to walk.

Alternative Site 1 would result in additional impact on energy, geology, and soils while it would eliminate the visual impact. Alternative Sites 2,3 and 4 would change the location of impacts discussed herein to the respective sites.

VIII. THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

A. Long-Term Effects

The proposed structure would probably remain in existence for 50 or more years, depending on the role of the automobile in future urban transportation. Within the lifespan of the garage, no alternative development options on the site would likely be exercised. Once put into operation, the garage would consume a small amount of natural resources and services.

The project would continue to adversely affect air quality and ambient noise levels. Whether or not this effect would be cumulative and would operate adversely over the long term would depend upon the efforts made by the industry and government in reducing the effects of the automobile.

B. Reason for Undertaking Action Now

By undertaking the project now, off-street parking spaces would be provided in the immediate vicinity of the Opera House and the proposed Performing Arts Center complex to facilitate maximum attendance at programs scheduled at these and other Civic Center facilities, as well as to replace existing interim parking on the Commerce High School site.

IX. ANY IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED

The proposed project would require the removal of landscaping plants located in the State of California parking lot. The commitment of resources in the form of construction materials and energy is an irreversible commitment of natural resources. The function of the garage, as a parking facility for automobiles, also reflects an indirect commitment of petroleum, minerals and land sources upon which automobiles would continue to depend.

X. THE GROWTH-INDUCING IMPACT OF THE PROPOSED ACTION

The proposed parking structure would provide a part of the urban transportation system used by motorists. By provision of parking spaces, a portion of the total private transportation journeys by automobile would be facilitated. In contrast to surface parking, the proposed garage represents a more efficient use of land in the urban area. The project would not require the provision of new utilities and services and its development would not stimulate an increase in residential population in the immediate area.

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